Name:

at1113exam: Expand, factor, and solve quadratics (v301)

1. Expand the following expression into standard form.

$$(7x + 9)(7x - 9)$$

2. Expand the following expression into standard form.

$$(5x - 3)(6x + 7)$$

3. Expand the following expression into standard form.

$$(3x + 7)^2$$

4. Solve the equation.

$$(5x + 2)(8x - 7) \;=\; 0$$

5. Solve the equation with factoring by grouping.

$$10x^2 + 8x + 15x + 12 \;=\; 0$$

6. Solve the equation.

$$6x^2 - 26x + 5 \;=\; 3x^2 + 2x - 4$$

7. Factor the expression.

$$36x^2 - 25$$

8. Factor the expression.

$$x^2 - 13x + 42$$

Name:

at1113exam: Expand, factor, and solve quadratics (v302)

1. Expand the following expression into standard form.

$$(9x + 8)^2$$

2. Expand the following expression into standard form.

$$(5x - 2)(9x - 8)$$

3. Expand the following expression into standard form.

$$(2x - 3)(2x + 3)$$

4. Solve the equation.

$$(7x + 8)(5x + 3) \;=\; 0$$

5. Factor the expression.

$$36x^2 - 25$$

6. Factor the expression.

$$x^2 + 7x - 18$$

7. Solve the equation.

$$5x^2 + 9x - 12 \;=\; 3x^2 - 4x - 5$$

8. Solve the equation with factoring by grouping.

$$20x^2 + 15x + 24x + 18 \;=\; 0$$

Name:

at1113exam: Expand, factor, and solve quadratics (v303)

1. Solve the equation.

$$(4x - 3)(5x - 9) \;=\; 0$$

2. Expand the following expression into standard form.

$$(5x - 7)(5x + 7)$$

3. Expand the following expression into standard form.

$$(6x - 5)^2$$

4. Expand the following expression into standard form.

$$(3x - 2)(7x + 6)$$

5. Solve the equation.

$$11x^2 - 39x + 13 \;=\; 4x^2 - 2x + 3$$

6. Factor the expression.

$$9x^2 - 49$$

7. Factor the expression.

$$x^2 - 11x + 24$$

8. Solve the equation with factoring by grouping.

$$15x^2 + 18x + 10x + 12 \;=\; 0$$

Name:

at1113exam: Expand, factor, and solve quadratics (v304)

1. Expand the following expression into standard form.

$$(2x - 3)^2$$

2. Solve the equation.

$$(4x - 7)(2x + 9) \;=\; 0$$

3. Expand the following expression into standard form.

$$(3x - 5)(8x - 9)$$

4. Expand the following expression into standard form.

$$(2x - 7)(2x + 7)$$

5. Solve the equation.

$$10x^2 + 50x + 60 \;=\; 5x^2 + 3x + 4$$

6. Solve the equation with factoring by grouping.

$$6x^2 + 15x + 8x + 20 \;=\; 0$$

7. Factor the expression.

$$49x^2 - 36$$

8. Factor the expression.

$$x^2 - 11x + 24$$

Name:

at1113exam: Expand, factor, and solve quadratics (v305)

1. Expand the following expression into standard form.

$$(2x + 7)(2x - 7)$$

2. Expand the following expression into standard form.

$$(9x - 5)^2$$

3. Expand the following expression into standard form.

$$(9x + 8)(2x + 5)$$

4. Solve the equation.

$$(9x - 4)(3x + 2) \;=\; 0$$

5. Solve the equation.

$$6x^2 + 9x - 7 \;=\; 3x^2 + 4x + 5$$

6. Factor the expression.

$$25x^2 - 64$$

7. Solve the equation with factoring by grouping.

$$10x^2 + 15x + 12x + 18 \;=\; 0$$

8. Factor the expression.

$$x^2 + 11x + 24$$

Name:

at1113exam: Expand, factor, and solve quadratics (v306)

1. Solve the equation.

$$(3x - 4)(7x - 5) \;=\; 0$$

2. Expand the following expression into standard form.

$$(9x + 2)^2$$

3. Expand the following expression into standard form.

$$(4x + 9)(4x - 9)$$

4. Expand the following expression into standard form.

$$(9x - 8)(3x - 4)$$

5. Factor the expression.

$$49x^2 - 81$$

6. Factor the expression.

$$x^2 - 15x + 56$$

7. Solve the equation.

$$10x^2 - 9x - 12 \;=\; 5x^2 - 3x - 4$$

8. Solve the equation with factoring by grouping.

$$12x^2 + 15x + 8x + 10 \;=\; 0$$

Name:

at1113exam: Expand, factor, and solve quadratics (v307)

1. Expand the following expression into standard form.

$$(8x + 5)^2$$

2. Expand the following expression into standard form.

$$(3x - 8)(3x + 8)$$

3. Expand the following expression into standard form.

$$(3x + 8)(7x + 9)$$

4. Solve the equation.

$$(6x + 5)(2x - 9) \;=\; 0$$

5. Solve the equation with factoring by grouping.

$$24x^2 + 18x + 20x + 15 \;=\; 0$$

6. Solve the equation.

$$6x^2 - 30 \;=\; 4x^2 - 3x + 5$$

7. Factor the expression.

$$49x^2 - 81$$

8. Factor the expression.

$$x^2 + 5x - 24$$

Name:

at1113exam: Expand, factor, and solve quadratics (v308)

1. Expand the following expression into standard form.

$$(4x + 3)^2$$

2. Expand the following expression into standard form.

$$(7x - 2)(9x - 4)$$

3. Solve the equation.

$$(8x - 3)(7x - 9) \;=\; 0$$

4. Expand the following expression into standard form.

$$(3x + 8)(3x - 8)$$

5. Factor the expression.

$$x^2 - 2x - 35$$

6. Solve the equation.

$$9x^2 + 34x + 17 \;=\; 2x^2 + 3x + 5$$

7. Solve the equation with factoring by grouping.

$$18x^2 + 15x + 24x + 20 \;=\; 0$$

8. Factor the expression.

$$16x^2 - 81$$

Name:

at1113exam: Expand, factor, and solve quadratics (v309)

1. Expand the following expression into standard form.

$$(4x + 3)(4x - 3)$$

2. Expand the following expression into standard form.

$$(2x - 5)^2$$

3. Solve the equation.

$$(2x - 5)(8x + 3) \;=\; 0$$

4. Expand the following expression into standard form.

$$(9x + 5)(2x + 3)$$

5. Solve the equation with factoring by grouping.

$$10x^2 + 8x + 15x + 12 \;=\; 0$$

6. Factor the expression.

$$x^2 - 4x - 32$$

7. Solve the equation.

$$9x^2 - 17x + 3 \;=\; 2x^2 - 4x - 3$$

8. Factor the expression.

$$49x^2 - 16$$

Name:

at1113exam: Expand, factor, and solve quadratics (v310)

1. Expand the following expression into standard form.

$$(9x + 2)^2$$

2. Solve the equation.

$$(6x + 5)(3x - 8) \;=\; 0$$

3. Expand the following expression into standard form.

$$(2x - 9)(5x + 7)$$

4. Expand the following expression into standard form.

$$(7x + 5)(7x - 5)$$

5. Solve the equation with factoring by grouping.

$$12x^2 + 18x + 10x + 15 \;=\; 0$$

6. Solve the equation.

$$7x^2 + 21x + 33 \;=\; 4x^2 - 2x + 3$$

7. Factor the expression.

$$x^2 + 3x - 40$$

8. Factor the expression.

$$64x^2 - 9$$

Name:

at1113exam: Expand, factor, and solve quadratics (v311)

1. Expand the following expression into standard form.

$$(2x + 7)^2$$

2. Expand the following expression into standard form.

$$(8x + 7)(8x - 7)$$

3. Expand the following expression into standard form.

$$(4x - 3)(6x + 7)$$

4. Solve the equation.

$$(5x - 9)(2x - 3) \;=\; 0$$

5. Solve the equation.

$$8x^2 + 32x + 38 \;=\; 3x^2 - 5x - 4$$

6. Solve the equation with factoring by grouping.

$$18x^2 + 15x + 12x + 10 \;=\; 0$$

7. Factor the expression.

$$x^2 + x - 56$$

8. Factor the expression.

$$36x^2 - 25$$

Name:

at1113exam: Expand, factor, and solve quadratics (v312)

1. Expand the following expression into standard form.

$$(9x + 2)^2$$

2. Expand the following expression into standard form.

$$(9x + 4)(9x - 4)$$

3. Expand the following expression into standard form.

$$(3x + 7)(9x + 5)$$

4. Solve the equation.

$$(3x - 2)(8x - 5) \;=\; 0$$

5. Factor the expression.

$$16x^2 - 49$$

6. Solve the equation with factoring by grouping.

$$15x^2 + 18x + 20x + 24 \;=\; 0$$

7. Factor the expression.

$$x^2 + 11x + 24$$

8. Solve the equation.

$$11x^2 - 56x + 43 \;=\; 4x^2 + 5x + 3$$

Name:

at1113exam: Expand, factor, and solve quadratics (v313)

1. Solve the equation.

$$(5x - 8)(4x - 7) \;=\; 0$$

2. Expand the following expression into standard form.

$$(5x + 3)^2$$

3. Expand the following expression into standard form.

$$(8x + 7)(8x - 7)$$

4. Expand the following expression into standard form.

$$(9x - 5)(2x + 7)$$

5. Factor the expression.

$$25x^2 - 36$$

6. Solve the equation.

$$9x^2 + 54x + 51 \;=\; 2x^2 - 3x - 5$$

7. Solve the equation with factoring by grouping.

$$10x^2 + 8x + 15x + 12 \;=\; 0$$

8. Factor the expression.

$$x^2 - 16x + 63$$

Name:

at1113exam: Expand, factor, and solve quadratics (v314)

1. Expand the following expression into standard form.

$$(2x + 5)(2x - 5)$$

2. Solve the equation.

$$(5x - 9)(3x + 7) \;=\; 0$$

3. Expand the following expression into standard form.

$$(8x - 9)^2$$

4. Expand the following expression into standard form.

$$(8x + 3)(2x + 7)$$

5. Solve the equation with factoring by grouping.

$$15x^2 + 10x + 12x + 8 \;=\; 0$$

6. Factor the expression.

$$9x^2 - 25$$

7. Factor the expression.

$$x^2 - 7x + 12$$

8. Solve the equation.

$$9x^2 + 4x - 29 \;=\; 4x^2 - 3x - 5$$

Name:

at1113exam: Expand, factor, and solve quadratics (v315)

1. Solve the equation.

$$(9x - 8)(7x - 3) \;=\; 0$$

2. Expand the following expression into standard form.

$$(3x - 4)(9x - 2)$$

3. Expand the following expression into standard form.

$$(8x + 3)^2$$

4. Expand the following expression into standard form.

$$(7x + 3)(7x - 3)$$

5. Solve the equation.

$$9x^2 + 72x + 40 \;=\; 2x^2 + 5x + 4$$

6. Factor the expression.

$$81x^2 - 16$$

7. Solve the equation with factoring by grouping.

$$12x^2 + 10x + 18x + 15 \;=\; 0$$

8. Factor the expression.

$$x^2 + 3x - 28$$

Name:

at1113exam: Expand, factor, and solve quadratics (v316)

1. Expand the following expression into standard form.

$$(7x + 5)(7x - 5)$$

2. Solve the equation.

$$(2x - 9)(4x + 7) \;=\; 0$$

3. Expand the following expression into standard form.

$$(4x - 5)(7x - 6)$$

4. Expand the following expression into standard form.

$$(4x - 7)^2$$

5. Factor the expression.

$$49x^2 - 9$$

6. Solve the equation with factoring by grouping.

$$15x^2 + 20x + 18x + 24 \;=\; 0$$

7. Solve the equation.

$$9x^2 - 32x \;=\; 2x^2 - 3x - 4$$

8. Factor the expression.

$$x^2 + 7x - 18$$

Name:

at1113exam: Expand, factor, and solve quadratics (v317)

1. Solve the equation.

$$(4x - 3)(7x + 9) \;=\; 0$$

2. Expand the following expression into standard form.

$$(4x + 3)^2$$

3. Expand the following expression into standard form.

$$(5x + 6)(7x + 4)$$

4. Expand the following expression into standard form.

$$(3x - 8)(3x + 8)$$

5. Solve the equation with factoring by grouping.

$$18x^2 + 12x + 15x + 10 \;=\; 0$$

6. Factor the expression.

$$x^2 - 3x - 54$$

7. Solve the equation.

$$10x^2 - 46x + 35 \;=\; 5x^2 - 2x + 3$$

8. Factor the expression.

$$49x^2 - 25$$

Name:

at1113exam: Expand, factor, and solve quadratics (v318)

1. Expand the following expression into standard form.

$$(4x - 3)(8x + 5)$$

2. Expand the following expression into standard form.

$$(2x + 5)^2$$

3. Expand the following expression into standard form.

$$(7x - 8)(7x + 8)$$

4. Solve the equation.

$$(2x - 9)(8x + 3) \;=\; 0$$

5. Solve the equation with factoring by grouping.

$$12x^2 + 10x + 18x + 15 \;=\; 0$$

6. Factor the expression.

$$81x^2 - 25$$

7. Solve the equation.

$$12x^2 + 44x + 26 \;=\; 5x^2 - 3x - 4$$

8. Factor the expression.

$$x^2 + 11x + 30$$

Name:

at1113exam: Expand, factor, and solve quadratics (v319)

1. Solve the equation.

$$(5x + 8)(4x - 7) \;=\; 0$$

2. Expand the following expression into standard form.

$$(7x + 9)(7x - 9)$$

3. Expand the following expression into standard form.

$$(5x + 7)^2$$

4. Expand the following expression into standard form.

$$(4x + 9)(3x + 2)$$

5. Factor the expression.

$$49x^2 - 36$$

6. Solve the equation with factoring by grouping.

$$18x^2 + 15x + 12x + 10 \;=\; 0$$

7. Factor the expression.

$$x^2 - 9x + 18$$

8. Solve the equation.

$$9x^2 - 11x - 31 \;=\; 4x^2 + 2x - 3$$

Name:

at1113exam: Expand, factor, and solve quadratics (v320)

1. Expand the following expression into standard form.

$$(9x - 2)^2$$

2. Expand the following expression into standard form.

$$(5x + 3)(7x - 6)$$

3. Expand the following expression into standard form.

$$(5x - 2)(5x + 2)$$

4. Solve the equation.

$$(3x + 2)(4x + 7) \;=\; 0$$

5. Factor the expression.

$$49x^2 - 81$$

6. Solve the equation with factoring by grouping.

$$18x^2 + 15x + 24x + 20 \;=\; 0$$

7. Factor the expression.

$$x^2 + 3x - 28$$

8. Solve the equation.

$$7x^2 + 19x - 8 \;=\; 4x^2 + 5x - 3$$